Food Safety

Internet Resource Directory

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Table of Contents

Introduction:

We prepared this directory for government officials, food service program administrators, faculty and students in food and nutrition departments, and the general public. We thank the developers of the Web pages featured in this guide for their untold hours of effort in preparing and maintaining their informative sites.

People want to know that the food they eat is safe and disease-free. In an age where information abounds, and where the Internet is ever more in use as the information source of choice, it is often hard to search out the best, most useful, and most accurate web sites. For administrators of programs, finding the best sources of information for staff and consumers, locating training programs, and accessing regulatory information can be complex and time-consuming. We hope this guide will make the process easier.

The focus of this guide is the prevention of biological food-borne illness (e.g., hepatitis, Salmonella, E. coli), not such food safety issues as pesticides, genetically-modified foods, heavy metals, or irradiation.

The changing nature of the World Wide Web:

This directory was completed in August, 2001. Because the Internet is constantly evolving, web site addresses may change or become out-of-date. We apologize in advance for any inconvenience or confusion that may result.

Technical note:

Many of the consumer materials available on the Internet require Adobe Acrobat Reader (which can be down-loaded without charge) or an equivalent software program for best reproduction.

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Food Safety Internet Resource Directory

Home pages for *italicized* websites are included in the appendix.

Codes:

>**EC** Educational materials for consumers: these materials are very user friendly, available in readily understandable language for many levels of education and literacy;

>**ES** Educational materials for staff: these materials include those appropriate for consumers, as well as a few more specific materials or materials with a more in-depth look at issues;

>**F** Funding sites: grant or other funding opportunities, particularly through the federal government;

>**I** Index sites: these sites are basically a table of contents that link to multiple other sites and information sources;

>**P** Professional information: these sites have materials that may contain slightly more technical language, but still should be readily useable by staff and consumers with some knowledge of the topic areas;

>**R** Regulatory information: these sites provide or link to information on laws and regulation related to food safety and foodborne illness;

>**T** Training information: these sites provide direct links to available training or to training resource information.

I. Government Agency Websites for Food Safety Issues
A.   Centers for Disease Control and Prevention (CDC):

The CDC is an agency of the US Department of Health and Human Services. The agencies web sites are a goldmine of epidemiologic information on almost any public health-related topic.

1. *CDC Homepage*: http://www.cdc.gov   I, F
A large site with access to health-related databases (e.g., the National Center for Health Statistics), research materials, disease information, and health news. Despite the wealth of information, it's quite easy to use. Click on their "funding" heading to access grant and other project funding opportunities.

2. CDC Food Safety Initiative: http://www.cdc.gov/foodsafety/   I, EC, ES
This has some basic links to information about foodborne illness initiatives, with some up-to-date CDC publications on foodborne illness statistics and recent food-related illness outbreaks. An interesting link is to their food safety image library.

3. CDC Disease Information: http://www.cdc.gov/ncidod/diseases/index.htm ES, EC
The CDC Disease Information page has an alphabetical list of infectious diseases, including food-borne illnesses. It has thorough information on natural history, safety guidelines,

requirements for food handling, treatment, and prevention of spread. The information is somewhat medically technical and therefore most useful for professionals and consumers somewhat versant in biologic and public health terminology. For example, the article by Mead et al, "Food-related illness and death in the United States" (Emerging Infectious Diseases, 2000), can be accessed in its entirety at http://www.cdc.gov/ncidod/eid/vol5no5/mead.htm.

4. CDC Training Opportunities: http://www.cdc.gov/train.htm T
Training opportunities in almost any public health field are listed here. Although there are no specific links to foodborne illness training, there are certificate programs from the National Laboratory Training Network, postdoctoral programs in infectious disease, public health prevention service fellowships, and other public health-related areas of education. The Public Health Training Network provides information on video and audio conferences and meetings of interest.

5. CDC FoodNet: http://www.cdc.gov/ncidod/dbmd/foodnet/brochure.htm/ P
The Foodborne Diseases Active Surveillance Network (Foodnet) is a collaboration among CDC, USDA, and the FDA. This site describes the surveillance system and lists related publications.

6. CDC Vessel Sanitation Program: http://www.cdc.gov/nceh/vsp/ P
Contains operations and construction manuals and their support documents, outbreak investigation reports, and a searchable database of detailed inspection reports.

7. CDC Environmental Health Services Branch: http://www.cdc.gov/nceh/ehserv/ P
This CDC branch provides technical assistance to state, local, tribal and other government agencies engaged in environmental health service programs; participates in foodborne illness and other disease outbreak investigations and identifies environmental antecedents (through EHS-Net); and supports, through training and other methods, environmental disciplines where there are technology or information gaps in areas such as food safety and water sanitation. The web site includes a food safety program management list serve.

B.   Food Safety and Inspection Service (FSIS):
FSIS of the US Department of Agriculture protects consumers by ensuring that meat and poultry products are safe, wholesome, and accurately labeled.

1. FSIS Home index page: http://www.fsis.usda.gov/index.htm EC, ES, I
The FSIS home page links to their latest news and information, publications, consumer education, organization and program areas, pathogen reduction/HACCP training and implementation, and other areas of interest. Easy to use.

*2. FSIS Consumer Education and Information***: http://www.fsis.usda.gov/oa/consedu.htm**
EC, ES, T, I
A great link to videoconferences, seasonal food safety information (e.g., how to be safe for Thanksgiving and Christmas with turkey handling), consumer publications and advice, current education campaigns, and resources for consumers and educators. It also allows you to sign up for the foodsafety.gov list serve and the Food Safety Educator Newsletter. It's the "keep-up-to-date" page.

3. FSIS Food Safety Publications: http://www.fsis.usda.gov/oa/pubs/consumerpubs.htm
        EC, ES, I
An index page, this provides a full link to downloads of consumer information on a number of both specific and general food safety issues, such as how to keep food safe during power outages, food safety on the road, seasonal food safety tips, how to safely defrost food, hurricane and flood food safety, and others. Both the esoteric and the basic. Easy to use.   Many of the links to materials require Adobe Acrobat Reader.

C.   National Agricultural Library:
The National Agricultural Library is the nation's primary source of agricultural information.

1. *Foodborne Illness Education Information Center:*
http://www.nal.usda.gov/fnic/foodborne/foodborn.htm   EC, ES
This wonderful site has links to food safety education and training materials, HACCP training materials, and a foodsafe discussion group on the web. In addition, it links to the Food Safety and Inspection Service, the FDA, the Cooperative State Research, Education and Extension Service, and the University of Maryland, which cooperatively maintains these sites. Their materials are regularly updated and materials available in languages other than English. The site also explains how to borrow materials from the National Agricultural Library.
   The Foodborne Illness Educational Materials Database is a "compilation of consumer and food worker educational materials developed by universities, private industry, and local, state, and federal agencies. The database includes computer software, audiovisuals, posters, games and teaching guides for elementary and secondary school education; training materials for the management and workers of retail food markets, food service establishments and institutions; educational research and more. It is updated monthly."

2. National Agricultural Library (NAL): http://www.nal.usda.gov/services.htm ES,EC,P
This site has broader information about agricultural issues, but links you to their Foodborne Illness Education site and gives access to how to use the NAL resources.

3. USDA Food and Nutrition Information Center: http://www.nal.usda.gov/fnic I, ES, EC
This site guides you through the vast resources of the National Agricultural Library (NAL). It is maintained by Cooperative Agreement with the Department of Nutrition and Food Science in the College of Agriculture and Natural Resources at the University of Maryland. It will take you with one click to the USDA's food safety page, or will link you with other nutritional information.

D.   National Archives and Records Administration:

1. *Code of Federal Regulations***: http://www.access.gpo.gov/nara/cfr/cfr-table-search.html R**
The Code of Federal Regulations includes the federal regulations regarding food safety. If you go to this site, check the box next to "Agriculture" (Title 7) or "Food and Drug" (Title 21). That will take you to other regulatory sites where you can search for the regulation of interest to you. As an example, under Title 7, you will find all the regulations for the school lunch program. It is not particularly user-friendly. However, it is the "real thing".

E.   US Food and Drug Administration (FDA) Center for Food Safety and Applied Nutrition (CFSAN):

1. *FDA/CFSAN Homepage***: http://vm.cfsan.fda.gov/   I**
An index site, this includes FDA/CFSAN program areas, special interest areas (such as consumer advice, industry assistance, and a seniors section), and other sources of food information. There are general information links as well, such as to other food regulatory agencies.

2. *FDA/CFSAN Foodborne Illness***: http://vm.cfsan.fda.gov/~mow/foodborn.html   T, ES, EC, I**
This is an index to other sites in the following areas: consumer information, foodborne pathogens and natural toxins, milk safety, retail food protection and seafood safety, national food safety initiative, HACCP web pages, and other government sources of information on foodborne illness. It may be a good place to start if you want an overview of links to most of the government sources on foodborne illness. Easy to use and comprehensive.

3. *FDA/CFSAN Hazard Analysis and Critical Control Point (HACCP) Homepage***:**
http://vm.cfsan.fda.gov/~lrd/haccp.html T
This is the home page for FDA's food safety trainings and all related information. If you have trainings that need that regulatory component, or which need to address regulatory issues, this is the site.

4. FDA/CFSAN National Food Safety Initiative: http://vm.cfsan.fda.gov/~dms/fs-toc.html
        EC, ES, T, R, I
This is a comprehensive index site that lists links in the following areas, which include sites in foodborne illness and pathogens: Overview sites, Produce and Import Safety Initiative, Surveillance, Inspections and Compliance, Product and Pathogen Specific Initiatives, Coordination, Education, Research, Risk Assessment, and Selected Federal Government Sources of Food Safety Information. It is very thorough, with many useful links. Easy to use and comprehensive. This is a great "start" site for anything you want to know about food safety.

5. FDA/CFSAN Food Safety: A Team Approach:
http://vm.cfsan.fda.gov/~lrd/foodteam.html   R
This is a great page that lists all departments that share in food safety regulatory issues (about ten). It explains each one and links directly to their web site home pages. Easy to use, easy to understand, and a great step-in to all regulatory agencies.

6. Food Safety Risk Analysis Clearinghouse: http://www.foodriskclearinghouse.umnd.edu/
P
This site provides data, tutorials, tools and links for professionals involved with risk analysis as it pertains to food safety. The clearinghouse's parent organization is JIFSAN (Joint Institute for Food Safety and Applied Nutrition), a collaborative venture between the FDA and the University of Maryland at College Park.

F. Other governmental sources of information:
1. Consumer.gov: http://www.consumer.gov/food.htm   EC, I
This is an index page for consumer information about food available from the federal government. The food safety section links to FDA and FSIS sites. They have up-to-date information on fruits and vegetables, labeling, meat and poultry, nutrition, product recalls, food safety, and seafood. These connect to other specific government sites with information on food safety topics.

2. Cooperative State Research, Education, and Extension Service of the USDA:
http://www.reeusda.gov/   F
This site will take you to funding opportunities related to food issues in the federal government, as well as links to state resources. Not specific to foodborne illness.

3. http://www.foodsafety.gov/: *Gateway to Government Food Safety Information*
I, EC, ES, T
As it's name implies, this site offers readily-accessible links to other food safety sites inside and outside the Federal government, including the Food Safety Training and Education Alliance, grant opportunities, recent news and updates related to food safety, and some international links on food safety issues.

4. Food Safety: http://schoolmeals.nal.usda.gov:8001/Safety/index.html EC, ES
This page is primarily a school meals link. However, the index has great connections to sites for educational information, food safety resources, and the FSIS.

5. Food Safety Training and Education Alliance for Retail, Food Service, Vending, Institutions, and Regulators: http://www.foodsafety.gov/~fsg/fstea.html   ES, EC, R
This alliance emerged in 1997 out of the President's Food Safety Initiative. It's mission is "to reduce the risk of foodborne illness by coordinating efforts of government, industry and educators to change behaviors of food workers, managers and regulators through training and education based on current science as reflected in the Food Code." There are links to foodborne pathogen information, national safety initiatives, industry assistance, consumer advice and more. It is relatively easy to use. It is not the most current site (last updated in 9/99), but does contain the 1999 Food Code.

6. GrantsNet: http://www.hhs.gov/grantsnet/   **F**
GrantsNet is the homepage for funding sources for Health and Human Services. With a few clicks, you can search the federal database for project funding opportunities both within HHS as well as from other federal agencies. Fairly easy to use.

7. *Healthfinder*: http://www.healthfinder.gov/   **EC, ES, I**
This site is a service of the U.S. Department of Health and Human Services. It tries to organize all that incredible amount of health and nutrition information from state and federal agencies in a useable fashion. It has a search tool. When you look for "foodborne illness", you get connections to Internet resources on foodborne illness (33 links) and related organizations (11). User-friendly and a good search tool.

8. ERS/USDA Research Emphasis – Food Safety:
http://www.ers.usda.gov/emphases/safefood/   **P**
Information on the economic issues affecting food safety in the United States, such as the costs of foodborne illnesses and cost/benefit analyses of programs to improve food safety.

9. National Food Safety Database: http://www.foodsafety.ufl.edu/index.html/ EC,ES,I,P,T
Funded by the USDA, the NFSD is a system of national food safety databases. Its award-winning web site has sections on consumer-, industry-, and educator/trainer-related resources. There are extensive links to other food-related web sites.

II. University Extension, and Non-governmental sites for Food Safety

A. Distance Education and Information Technology:
http://www.aes.purdue.edu/acs/disted.html   **T**
The useful links here are to resources about development of distance education programs, such as a satellite training opportunity on food safety offered in December, 2000.

B. *Fight Bac!*: http://www.fightbac.org/   **EC, ES**
This innovative site was developed "in an ambitious public-private partnership created to reduce the incidence of foodborne illness by educating Americans about safe food handling practices." It has wonderful information, easy to use, understandable, and gets high ratings for accuracy (10 out of 10 by the Tufts Nutrition Navigator). Their consumer education materials available for download are interactive and fun for all age groups. There are also materials for sale. Their materials would make good community education training tools. They have good links to other food safety sites.

C. *Iowa State University, University Extension Food Safety Project*:
http://www.extension.iastate.edu/foodsafety/   **EC, ES, T**
This site has research-based information for consumers, educators, and students on food safety and quality. It has a section on common foodborne pathogens, and links to the Food Safety Consortium and HACCP Training. It superb and comprehensive web site.

D. National Food Safety Database: http://www.foodsafety.ufl.edu/index.html EC, ES, R, I
This is an excellent site, which just lost funding so will not be updated after August 22, 2000. It is still amazingly useful, with consumer-related information, educator-related information, and industry-related information organized in an easy to find and easy to use format. Their links will allow you to link specifically in many areas of foodborne illness. As an example, they have a site-link page for:
Federal Regulations sites, http://www.foodsafety.ufl.edu/imenu/regs.htm
USDA Regulations http://www.foodsafety.ufl.edu/imenu/usdaregs.htm and
FDA Regulations http://www.foodsafety.ufl.edu/imenu/fdaregs.htm

E. North Carolina Cooperative Extension Service Food Safety Website:
http://www.ces.ncsu.edu/depts/foodsci/agentinfo/ EC, ES
North Carolina has put together a site with ten topic areas, seven based on types of food (meat, fruits, etc), and three more specific topics ("hot topics", resources, and organisms of concern). They try to include both links to other sites and new information and resources. Their site is user-friendly, and their Organisms of Concern section has some child-friendly information that is fun.

F. Safe Tables Our Priority (S.T.O.P.): http://www.stop-usa.org/whatis.html EC
This site describes itself as a non-profit grassroots advocacy organization to "prevent unnecessary illness and loss of life from pathogenic foodborne illness". They provide information and support to families of victims of foodborne illnesses, as well as consumer education, and opportunities for advocacy in foodborne illness-related issues.

G. Tufts University's Nutrition Navigator: http://www.navigator.tufts.edu/   I, ES, EC
Tuft's School of Nutrition Science and Policy has developed this website that is a rating guide to Nutrition Websites. It rates each site by nutrition information accuracy, depth of information, usability, and last site update, and then gives them an overall score. This site is an excellent way to check on the validity of other sites. In addition, under its "here's what's new" section is a search tool for a variety of nutritional topics.
Under their Health Professional link, they rate sites for a variety of topics, from food safety to disease-specific (cancer, diabetes, etc.) sites related to nutrition

H. Risk World - Food and Nutrition:
http://www.riskworld.com/websites/webfiles/ws6aa006.htm/   P
Risk World is an on-line publication with news, directories of web sites, funding opportunities, courses, calendar of events, and databases. It is compiled by a publishing company specializing in risk and energy issues for both risk professionals and the general public.

I. Institute of Food Science and Technology: http://www.ifst.org/   P
IFST is an international organization for food scientists and technologists based in London. In addition to on-line documents, IFST maintains a list of e-mail discussion groups and newsgroups on food safety topics.

J. Food and Drug Law Institute: http://www.fdli.org/about/index.html/ ES,R,P,T
FDLI is a "nonprofit educational organization dedicated to improving the understanding of the laws, regulations, and policies affecting the food and drug industry…FDLI is neutral and nonpartisan, and it does not lobby or take a stand on any issue." The web site provides information on conferences, training programs, publications, and links to related sites.

**K. Pennsylvania State University, Department of Food Sciences, Food Safety Program.
http://foodsafety.cas.psu.edu/ EC,ES,I,P,T**
This comprehensive web site provides food safety and preservation information for consumers, food producers, processors, and the food service/retail sector. It includes announcements of food safety short courses, an "educator toolbox", food safety databases, and links to other useful sites.

III. International Food Safety Links
In our global economy and in our time of worldwide travel, there may be a time when a larger look at world food safety issues will be important. The World Health Organization is an easy first link to the broader world net of information.

A. *World Health Organization Food Safety Programme*: http://www.who.int/fsf/   P
This site offers access to information of food safety within the World Health Organization. It has links to their food safety programme, publications, microbiological risk assessment, and others. Easy to use. It gives the international perspective and international efforts underway in world food safety. It has information in English, Spanish, and French.

Appendix:
Selected Web Pages